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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,237	10/18/2001	Kazutaka Hayashi	330-241	5587
23117	7590	10/20/2003		
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			EXAMINER WALLS, DIONNE A	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/981,237	HAYASHI ET AL.	
	Examiner	Art Unit	
	Dionne A. Walls	1731	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-12, drawn to a process for producing a glass molded article, classified in class 65, subclass 32.1.
  - II. Claim 13, drawn to an optical element, classified in class 428, subclass 38.
  - III. Claim 14, drawn to a method of treating glass to decolor, classified in class 65, subclass 30.11.
  - IV. Claim 15, drawn to a method of treating glass to color, classified in class 65, subclass 32.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I/II, II/III and II/IV are related as process of making and product made.

The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case for Inventions I/II and II/IV, the product can be made from a different process, such as one not requiring a follow-up heat-treatment in an oxidizing atmosphere. Regarding Inventions II/III, the product can be made from a different process such as one wherein the glass is heat treated in a non-oxidizing atmosphere.

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3. Inventions I/III, I/IV and III/IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions, i.e. one is process for press-molding glass, another process is for coloring glass, and the last process is for decoloring glass.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, and the search required for Group II is not required for Group III, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Mr. Arthur Crawford on September 24<sup>th</sup>, 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

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remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Art in view of Kingery et al ("Introduction to Ceramics").

Applicant admits, in the instant specification, that the press molding technique of press-molding a glass material made of an optical glass with a mold having a transfer molding surface to obtain a high-precision optical element without cutting and polishing after the press-molding is well-known. Such press molding is carried out in a non-oxidizing atmosphere and is performed on glass which contains  $P_2O_5$ ,  $WO_3$ ,  $Nb_2O_5$  and  $TiO_2$  (see pages 1-2). While Applicant may not admit that the molded article is then heat-treated in an oxidizing atmosphere, Kingery et al teaches that during the forming of glasses by pressing, residual stresses in glass can occur, which can lead to premature failure and variation in properties. It further states that annealing said glass is commonly required, after the forming steps, in order to stabilize the glass structure to avoid property variations. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate an annealing step, after the press forming step, which is obviously performed in a dry, oxidizing atmosphere (i.e. in

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ambient air) by heat-treatment to a temperature less than the glass transition temperature, since this is a conventional step performed in order to minimize the stress that results from the glass press-molding process (see pages 833 and 834).

Regarding claims 7 – 12, these parameters are not deemed to impart patentable distinction, as conventional glass articles exhibit these characteristics and compositions. In the alternative, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a process wherein the resulting glass molded product included these features is they are conventional in the glass art.

10. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 6-32623 in view of Applicant's Admitted Art.

JP 6-32623 discloses a method of producing an optical element which includes subjecting glass material to press-molding, in a non-oxidizing atmosphere, and then annealing the formed article in an atmosphere having higher oxygen concentration than that of air (corresponding to the claimed "heat-treating...in an oxidizing atmosphere") (see English translation and abstract). While JP 6-32623 may not disclose that the glass being press molded contains at least one of the claimed oxides, Applicant admits that press molding operations are often carried out on glass which contains  $P_2O_5$ ,  $WO_3$ ,  $Nb_2O_5$  and  $TiO_2$  (see pages 1-2). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to press-mold and then anneal a glass having the claimed oxides since glass having this composition is well-known in the glass art, as admitted by Applicant.

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Regarding claims 7 – 12, these parameters are not deemed to impart patentable distinction, as conventional glass articles exhibit these characteristics and compositions. In the alternative, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a process wherein the resulting glass molded product included these features is they are conventional in the glass art.

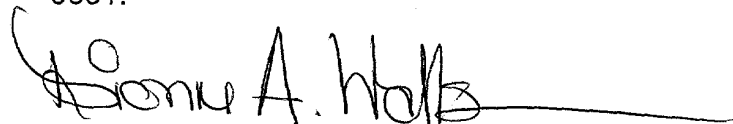
**Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne A. Walls whose telephone number is (703) 305-0933. The examiner can normally be reached on Mon-Fri, 7AM - 4:30PM (Every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (703) 308-1164. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

  
Dionne A. Walls  
October 10, 2003